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EXHIBIT

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THE EXPLORATORY TRENCHING
INVESTIGATION OF THE
SAAD TROUSDALE ROAD SITE
NASHVILLE, TENNESSEE

JULY 2, 1991

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1. EXECUTIVE SUMMARY

On March 25 and 26, 1991, EMPE conducted an exploratory trenching investigation on the SAAD Trousdale Road Site (hereinafter called the Saad Site or "the Site") located on Trousdale Drive in Nashville, Tennessee. The Site was used for waste oil receiving/recycling operations occurring during the late 1970's and early 1980's. The purpose of the investigation was to determine the presence/absence of potentially hazardous sludges within the defined area of interest.

A total of six (6) test pits were excavated in the area of interest at the southwestern corner of the Site designed not only to visually determine the existence of potentially contaminated material waste sludges, but also to collect samples for analysis.

No discrete sludge deposition was identified in any of the test pits. However, the area appeared to be impacted with what appeared to be waste oil.

Several analytical tests were performed on samples taken from the individual pits. A variety of tests including the Toxicity Characteristic Leaching Procedure (TCLP), Priority Pollutant Analysis, and Total Organic Halogen test were selected to identify hazardous characteristics associated with the test pit soil and also screen for an array of hazardous substances which might be present. None of the samples subjected to the TCLP were determined to exhibit hazardous characteristics. The Priority Pollutant Analysis did identify xylene, toluene, and ethylbenzene which are components of gasoline. Also some evidence of organic solvent residues were indicated due to the presence in the samples of low concentrations of tetrachloroethylene, trichloroethylene, and 1,1,1-trichloroethane. Other constituents discovered in trace amounts include vinyl chloride, 1,1-Dichloroethane, 1,2-Dichloroethylene, phenol, naphthalene, phenanthrene, and fluoroanthene.

1.1 Introduction

The Saad Site on Trousdale Drive in Nashville, Tennessee is a one-half acre parcel of property on which an oil recycling business was operated during the 1970's

and early 1980's. In 1978, environmental issues associated with the Site were raised when a settling basin located on the southwestern end of the Site was alleged to contain hazardous constituents.

Since that time, the Site has been the subject of several investigations performed by various regulatory entities, consultants and contractors.

Representatives of the Saad Site Steering Committee and EMPE met with EPA's on-scene coordinators, Rita Ford and Fred Stroud, and the EPA Region IV attorney assigned to the Site, Marcia Owens, on August 7, 1990, to discuss the work at the Site and the approach to the exploratory investigation. At that meeting, it was agreed that there did not appear to be a discrete geological sinkhole on the Site and, therefore, the investigation required under the Administrative Order by Consent would involve exploratory excavation in the southwest corner of the Site to investigate the settling basin area. It was agreed that given the limited space of the Site, the exploratory investigation would not proceed until all of the drums of material removed from tanks on the Site were shipped for disposal.

Pursuant to this agreement and the Administrative Order by Consent, EMPE prepared a Work Plan to conduct an investigation of the suspected settling basin to determine the presence of potentially hazardous sludges. A draft of the Work Plan was submitted to Rita Ford, and after consultations with Ms. Ford, a final Work Plan dated February 13, 1991 was submitted and approved. The investigation proposed by the approved Work Plan was implemented on March 25, 1991.

1.2 Purpose of Report

The purpose of this report is to summarize the information regarding the Site that has been accumulated through the exploratory trenching investigation conducted on March 25 and 26, 1991 pursuant to the approved Work Plan.

1.3 Site Background

Site Description

As stated previously, the Site is an approximately one-half acre parcel of property formerly used as an oil recycling business. The Site is currently owned by Mr. and Mrs. Ellis Saad. The Site is currently leased to and occupied by L.T.D. Body Shop (an automobile body shop).

The Site is bounded on the north by Klein's Custom Coach Company, on the south by Franklin Brick Company, on the east by Trousdale Drive, and on the west by the CSX Railroad Radnor Yard property.

Site History

According to available information, John P. Saad & Sons, Inc. began a waste oil service at the Site in 1970 receiving oil delivered to the Site in tank trucks. In March 1978, officials from the Tennessee Department of Public Health identified a settling basin (also referred to variously as a depression or sinkhole) on the southwest end of the Site.

In 1982, Tennessee Public Health and Conservation Department personnel and EPA Region IV representatives began investigating the Site. Several investigations of the Site have been undertaken since that time.

2. PHYSICAL CHARACTERISTICS OF THE AREA

2.1 Surface Features

The Saad Site on Trousdale Drive is located at an elevation of approximately 582 feet above mean sea level. The surface of the Site is covered with densely compacted gravel fill. Behind (to the west of) the northern portion of the Site and running roughly north/south is a shallow swale.

There are four structures on or near the Site. These are the on-site building that now houses the L.T.D. Body Shop operation, the Franklin Brick Company

building that borders the Site on the south, the railroad berm that lies directly behind the Site to the west, and the Klein Coach building that is adjacent to the Site on the north.

2.2 Surface Water Hydrology/Storm Water Runoff Evaluation

The Site is gently sloped to drain off-site in two directions. One-half of the Site drains west toward the swale located at the base of the steep bank below the railroad. The other half drains in sheet runoff east toward Trousdale Drive. A small, depressed area is located near the center of the property. During storm events, a small amount of rainwater remains standing in the center of the Site. Runoff from the Site generally appears to flow toward Seven Mile Creek.

A field inspection of the area storm water drainage patterns was conducted and surface elevations were taken at on- and off-site locations. The Saad property is relatively flat with elevations ranging less than 2 feet over the whole site.

According to Mike Murdock of the Metropolitan Nashville-Davidson County Storm Water Department, ponding and other storm water runoff problems along Trousdale Drive have existed for many years. Mr. Murdock indicated there is no storm water drainage plan for the Trousdale Drive area.

The Klein's Custom Coach building appears to have been constructed in a depression with the first floor elevation 2 to 3 feet lower than the first floor elevation of other buildings in the area. Also, the front of the Klein's Custom Coach property is a depressed concrete driveway receiving the storm water runoff from the area along Trousdale Drive and to the north. This driveway contains culverts/drains that are clogged with soil. The culverts along Trousdale Drive are almost completely clogged, adding to the drainage problem. The drainage trench at the rear of Klein's Custom Coach property drains the northwestern corner of the Saad property along with the roof runoff from the rear of the Klein's Custom Coach building.

In summary, storm water drainage problems are endemic to the area; the surface elevations and contours on the Saad property do not significantly affect the drainage of the Trousdale Drive area as a whole. As a result, the redirection of storm water runoff associated with the Saad property is not necessary. The periodic flooding is a result of the general lack of a storm water drainage system for the area.

2.3 Geology

The Site is located in the outer basin of the Central Basin physiographic province of Tennessee. This area is characterized by mature rolling hills which have resulted from erosion by surface waters as they drain toward the Cumberland River.

The Site is underlain by the upper Ordovician Bigby-Cannon Limestone. This limestone consists of three facies, of which, the Bigby Limestone is predominant in the area of the Saad Site. The Bigby Limestone is a medium light-gray to brownish-gray coarse-grained medium bedded calcarenite. The Bigby-Cannon does weather to form sinkholes in places; however, widening of vertical joints is the more prevalent form of solution weathering of the rock. These deeply weathered joints then provide ready conduits for groundwater movement downward to the underlying Hermitage Formation. This limestone has a high phosphate content and weathers to form some of the deeper clayey soils in the area.

2.4 Soils

The property lies on the Maury-Urban Land-Armour area. While the surface of this Site is covered with densely compacted gravel fill, the general area primarily consists of undulating to rolling, well drained soils, and industrial and urban land. These soils are deep and are formed in old alluvium and the underlying residuum of phosphatic limestone.

Maury soils are on wide, gently rolling uplands. The surface layer of Maury soil is dark brown silt loam about 7 inches thick. The subsoil extends to a depth of 65 inches. The soil is brown and reddish brown, friable silty clay loam in the upper

part; reddish brown, firm silty clay in the middle part; and yellowish red, firm silty clay in the lower part.

Urban land consists of areas that have been covered with buildings, other structures, and streets.

Armour soils generally are below Maury soils on stream terraces and foot slopes. Armour soils have a dark brown silt loam surface layer and a strong brown to yellowish red silty clay loam subsoil.

The soils are mainly well-drained Arrington, Hampshire, and Stiversville soils.

2.5 Hydrogeology

The hydrogeologic characteristics of the Site involve relatively deep, loamy soils overlying horizontal or slightly dipping alternating layers of fractured limestone. The surficial deposits consist of clay loams derived from weathered bedrock. The clay loams effectively slow the downward movement of water through the vadose zone. These soils are usually in direct, hydraulic connection with underlying fractured limestone. Groundwater is found primarily in fractures, joints, and solution channels in the bedrock. Water levels are variable but are, for the most part, moderately shallow as indicated by water levels in borings and wells installed at the Site during previous EPA investigations.

2.6 Demography and Land Use

The Site is located in a highly developed area of Nashville and is bounded by industrially developed property on three sides, most notably by the CSX Radnor Railroad Yards to the west.

3. EXPLORATORY EXCAVATION

In March 1991 EMPE, Inc. performed exploratory excavation/sampling at the Site in accordance with the approved Work Plan dated February 13, 1991. These activities were

concentrated at the southwest corner of the Saad Site and at the northwest corner of Franklin Brick property. The following summarizes the field activities that occurred March 25-26, 1991:

MARCH 25, 1991

On the morning of March 25, Barry Westbrook, John Bowers and Bry Roberson of EMPE arrived at the Saad Site in order to begin exploratory activities. Also present at the Site were Glenn Bailey and Roger Elamon of K.T. Harvestore (backhoe operators), Bob Powell of the Tennessee Division of Superfund, Fred Stroud of the US EPA, Greg Temple of Weston, Inc. (Technical Assistance Group for the EPA), Scott Thomas of Bass, Berry & Sims, James Hall of Dacco, Inc., Mr. John Gill and Ms. Joyce Anderson of Eaton, and Ellis Saad.

After a review of the Site Safety Plan, actual excavation activities were initiated at approximately 10:00 AM with Site workers in Level D personal protective equipment (PPE). Air and soils were monitored with an HNu photoionization detector (10.2 eV). Pits were excavated at the locations indicated on Figure 1 and were backfilled immediately after the contents had been inspected and sampled.

Pit #1

Pit #1 was located in the approximate center of the "area of interest" and was excavated to a depth of approximately 4 feet. The excavation of this pit was abandoned due to the infiltration of copious amounts of water which filled the pit and made the acquisition of information regarding the strata impractical. The soil and water in this pit emitted an odor of petroleum hydrocarbons; additionally, the water which accumulated in the pit exhibited a slight sheen at the surface. The HNu detected slightly elevated levels of organic vapor during the excavation of this pit.

CUSTOM
BUILDING

N 89°34'00" E
140.0000

SEWER

L.T.D.
BODY SHOP

SITE

6" BLOCK
WALL

15' OPENING
IN FENCE

PERMANENT
FENCING

S 89°14'00" W
150.0000

POWER POLE

FRANKLIN BRICK BUILDING

TROUSDALE DRIVE

Two soil samples were taken from this pit: a composite sample of shallow discolored soil and a grab sample taken from a depth of approximately four feet (4'). These samples were analyzed for the list of Priority Pollutants. Additionally, a sample of water that accumulated in the pit was also collected and analyzed for the list of Priority Pollutant volatile organic compounds (VOCs).

Pit #2

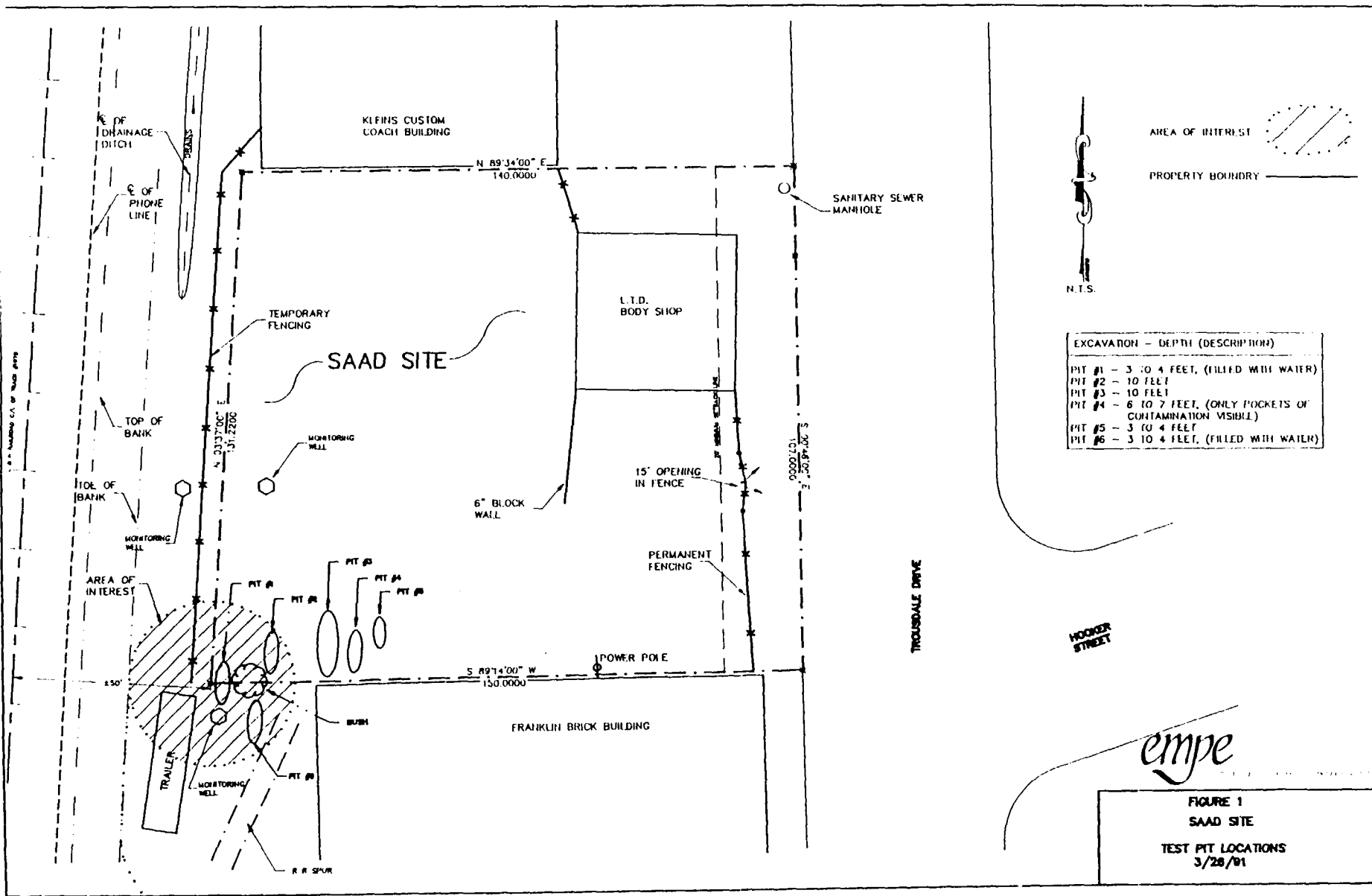
Exploratory excavation continued with Pit #2, located 12 feet northeast of the first excavation. This pit was excavated to a depth of approximately 10 feet. The soil in this pit has a distinctive organic odor and an abnormally dark appearance. While excavation of this pit was underway, the HNu detected elevated levels of organic vapors in and near the pit; accordingly, all personnel in the immediate area of the pit donned full-face respirators with organic vapor cartridges.

One composite soil sample was taken from Pit #2 and analyzed for the full list of Toxicity Characteristics Leaching Procedure (TCLP) compounds.

Pit #3

Pit #3, located approximately 15 feet east of Pit #2, was excavated to 10 feet. The soil in this pit was very similar to that in Pit #2 as were the levels of organic vapors detected.

Three samples were taken from this pit; two soil composites, one of which was split with the EPA Technical Assistant, and one sample from the water which collected in the pit. Both soil samples were analyzed for the full list of TCLP compounds and the water sample was analyzed for total organic halogens (TOX).



Pit #4

Excavation activities continued in a easterly direction with Pit #4. This pit was excavated to an approximate depth of 7 feet. The soils in this pit did not appear to be as discolored as those observed in the previous pits. Some isolated pockets of waste material were visible. Organic vapor levels continued to be detected during the excavation of this pit.

One composite soil sample was taken from this pit and analyzed for the full list of TCLP compounds. Also, one sample was taken from the water that collected in this pit and analyzed for the list of Priority Pollutant volatile organic compounds.

Pit #5

Pit #5 was located 10 feet east of Pit #4. The soil in this pit was visibly similar to that found in Pit #4, as were the levels of organic vapor detected by the HNu. Following the installation of this pit, exploratory activities ceased for the day.

One composite soil sample was taken from this pit and subjected to analyses for the full list of TCLP compounds.

MARCH 26, 1991

On-site activities resumed on the morning of the following day, March 26, after a brief safety meeting to reiterate necessary precautions and safety procedures. Present at the Site were Barry Westbrook, John Bowers, Bry Roberson, Glenn Bailey, Roger Elamon, James Hall, Fred Stroud, Greg Temple, Joyce Anderson, Scott Thomas, and Drew Goddard.

Pit #6

Actual excavation activities resumed with the installation of Pit #6 which was located between the Franklin Brick building and the western end of the railroad spur. The substrata in this pit was similar to that encountered

in Pit #1, i.e. the pit filled with water at a depth of approximately 4 feet forcing termination of the excavation of this pit.

One soil sample was taken from this excavation and analyzed for the full list of priority pollutant compounds.

Following the excavation of Pit #6, exploratory activities at the Site were terminated. The area in which all pits were excavated was covered with 6 millimeter polyethylene plastic sheeting and the polyethylene in turn was covered with "native" soil and smoothly graded. The backhoe used in the exploratory activities was decontaminated and all disposable items (Tyvek suits, gloves, etc.) were drummed and marked for future characterization and disposal. All investigating team personnel left the Site at approximately 11:00 AM.

4. SAMPLE RESULTS

During on-site exploratory activities, several samples were collected of the various media encountered in the pits. A detailed description of the samples taken during this phase of the investigation and the analyses to which they were subjected is included, in tabular form, in Appendix A of this report.

A total of thirteen (13) samples were collected from various sources including soil from the test pits, water which collected in the pits, and material found in a buried metal box uncovered during the investigation. These samples were subjected to one or more of the following analyses:

1. TCLP (full suite, extraction followed by EPA Method 7000 and 8000 series analyses),
2. Priority Pollutants (full suite, EPA Method 8000 series),
3. Priority Pollutant Volatile Organic Compounds (VOC, EPA Method 8240),
4. Total Organic Halogen (TOX, EPA Method 9020), and

5. Polychlorinated Biphenyls (PCB, EPA Method 8080).

The results of these analyses are presented in tabular form in Appendices B, C and D and in bench sheet form in Appendix E. To summarize these results, the soil in Pits #1 and #6 exhibited elevated levels of some organic compounds; most prevalent were gasoline constituents such as toluene, xylene and ethylbenzene. Additionally, soil samples taken from other pits exhibited elevated levels of various organic analytes. None of the samples subjected to the TCLP exhibited concentrations above hazardous waste characteristic levels.

5. AERIAL PHOTOGRAPH REVIEW

Subsequent investigation into the area of the former on-site depression included the review of historic aerial photographs of the area. The actual aerial photographs that depicted the location of the former settling basin were discovered bound in historical documents and were not included in this report. These photographs are available for review at the Metropolitan Davidson County Planning Commission Library located in Nashville, Tennessee. Copies of the aerial photographs will be obtained and provided to U.S. EPA under a separate cover. The settling basin can be seen in aerial photographs from 1974, 1976 and 1978. An aerial photograph from 1982 (just after the Franklin Brick Company constructed a building partially covering the former Site) is included as Figure 2. The 1976 and 1978 photographs depict what appears to be a low-lying area containing liquid. This feature appears to occupy the southwestern corner of the Saad Site, the northwestern corner of the Franklin Brick property and the eastern portion of the CSX berm in that area.

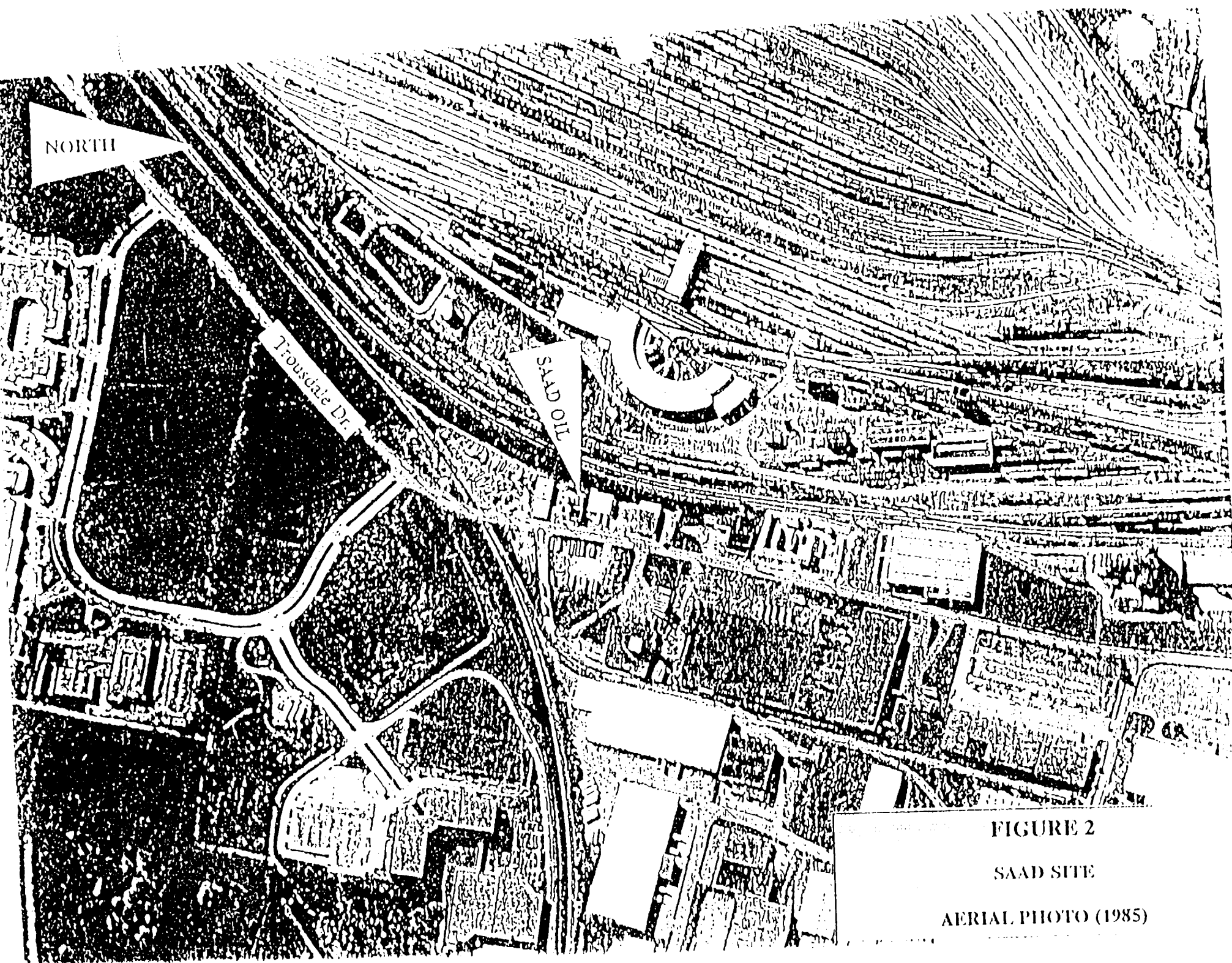


FIGURE 2

SAAD SITE

AERIAL PHOTO (1985)

Analysis of the historical aerial photos indicates that most of the foot print of the former basin lies on the Franklin Brick property. Approximately one fourth of the footprint appears to lie on the Saad property. The size and shape of this depression appeared to change over time. Figure 3 illustrates the maximum boundary of the depression as estimated by scaling historic aerial photographs. The area outlined on the Site map is a composite of the separate areas observed on the aerial photos. The area approximates an ellipse with the major axis length of 80 feet running north to south and the minor axis length of 60 feet running east to west.

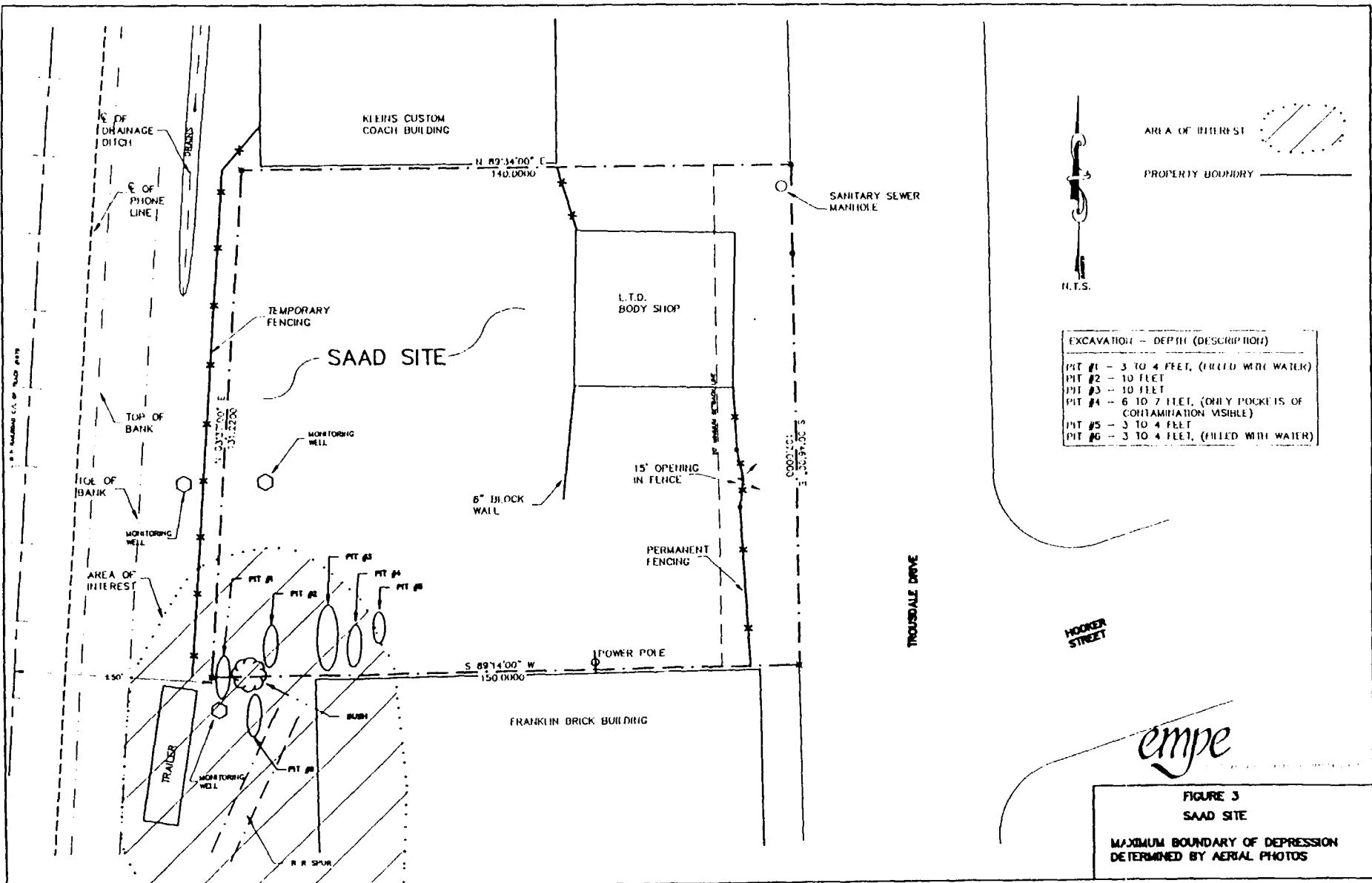
6. SUMMARY OF FINDINGS

The following issues have been clarified or resolved as a part of the recent exploratory trenching of the area of interest:

1. No discrete sludge layers were encountered during excavation activities in the area of interest.
2. Some of the excavated soils appeared to contain an oily residue that has permeated the area of interest.
3. There are no hazardous concentrations of heavy metals present in the soil according to the results of the TCLP and priority pollutant analyses of sample taken from the trenches.
4. The primary constituents of concern are petroleum hydrocarbons, xylene, toluene, and ethylbenzene. There are some trace concentrations of halogenated organic compounds at the Site.

7. RECOMMENDATIONS

The purpose of the exploratory trenching investigation was to determine the presence/absence of potentially hazardous sludges in the settling basin area. The investigation found no discrete layers of sludges in the area of interest. The approved Work Plan anticipated that this report would contain remedial recommendations relative



AREA OF INTEREST

PROPERTY BOUNDARY

EXCAVATION - DEPTH (DESCRIPTION)	
PIT #1	3 TO 4 FEET, (FILLED WITH WATER)
PIT #2	10 FEET
PIT #3	10 FEET
PIT #4	6 TO 7 FEET, (ONLY POCKETS OF CONTAMINATION VISIBLE)
PIT #5	3 TO 4 FEET
PIT #6	3 TO 4 FEET, (FILLED WITH WATER)

empe

FIGURE 3
SAAD SITE

MAXIMUM BOUNDARY OF DEPRESSION
DETERMINED BY AERIAL PHOTOS

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to materials found in the area of interest. Since the exploratory trenching investigation did not encounter discrete sludge layers and did not determine the boundaries of contamination, EMPE recommends further investigation prior to evaluating remedial alternatives. EMPE's recommendations include further investigation of the nature and extent of contamination resulting from the oily residues found during the exploratory excavation activities. This investigation will extend off-site. Once the nature and extent of soil contamination related to the former settling basin is established, pursuant to the Administrative Order by Consent, remedial alternatives for any hazardous substances found above appropriate action levels should be evaluated.

EMPE also recommends that a more detailed Storm Water Redirection Evaluation of the Site be performed in conjunction with the evaluation of remedial alternatives. This evaluation should include 1) a topographic map showing existing elevations at the Site, 2) a map showing the topography of the Trousdale Drive area, and 3) a storm water flow diagram. Any storm water redirection must be evaluated based on the results of the additional work conducted at the Site and the analysis of remedial alternatives.

APPENDIX A

SAAD SITE SAMPLES - DESCRIPTION, LOCATION AND ANALYSES PERFORMED 3/26/91

Sample I.D.	Sample Location	Sample Description	Analyses Performed
Trench #1	Trench #1	Shallow Discolored Soil	Priority Pollutants
Trench #1 4'	Trench #1	Grab Sample at 4'	Priority Pollutants
Trench #2	Trench #2	Soil Composite	TCLP
Trench #3	Trench #3	Soil Composite	TCLP
Trench #3/Split	Trench #3	Soil Composite, Split Sample With EPA Technical Assistant	TCLP
Trench #4	Trench #4	Soil Composite	TCLP
Trench #5	Trench #5	Soil Composite	TCLP
Trench #6	Trench #6	Soil Composite	Priority Pollutants
T-1	Trench #1	Water from Trench	VOCs
T-3	Trench #3	Water from Trench	Total Organic Halogen (TOX)
T-4	Trench #4	Water from Trench	VOCs
Metal Box	Buried Metal Box	Material From a Buried Metal Box Found On-site	PCB, TOX

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APPENDIX B

SAAD SITE SOIL TCLP RESULTS (IN PPM) 3/26/91

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Chemical	Trench #2	Trench #3	Trench #3 Split	Trench #4	Trench #5	Trench #6	Characteristic Waste Level
Arsenic	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	5.0
Barium	<1.0	<1.0	1.28	<1.0	<1.0	1.39	100.0
Cadmium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	1.0
Chromium	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.0
Lead	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.0
Mercury	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.2
Selenium	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	1.0
Silver	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	5.0
Benzene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.5
Carbon Tetrachloride	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.5
Chlorobenzene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	100.0
Chloroform	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	6.0
1, 2 - Dichloroethane	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.5
1, 1 - Dichloroethylene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.7
Methyl Ethyl Ketone	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	200.0
Tetrachloroethylene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.7
Trichloroethylene	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	0.5
Vinyl Chloride	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.2
1, 2 - Dichloroethylene	0.79	0.37	3.3	<0.10	<0.10	4.7	NA
Pyridine	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	5.0
O - Cresol	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	200.0
M - Cresol	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	200.0
P - Cresol	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	200.0
1, 4 - Dichlorobenzene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	7.5
2, 4 - Dinitrotoluene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.13

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SAAD SITE SOIL TCLP RESULTS (IN PPM) 3/26/91

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Chemical	Trench #2	Trench #3	Trench #3 Split	Trench #4	Trench #5	Trench #6	Characteristic Waste Level
Hexachlorobutadiene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.5
Hexachloroethane	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	3.0
Nitrobenzene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	2.0
Pentachlorophenol	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	100.0
2, 4, 5 - Trichlorophenol	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	400.0
2, 4, 6 - Trichlorophenol	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	2.0
Hexachlorobenzene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.13
Chlordane	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0.03
Endrin	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.02
Heptachlor	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.008
Heptachlorepoide	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.008
Lindane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.4
Methoxychlor	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10.0
Toxaphene	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	0.5
2, 4 - D	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	10.0
2, 4, 5 - TP (Silvex)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.0

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APPENDIX C

SAAD SITE SOIL PRIORITY POLLUTANT RESULTS (IN PPM) 3/26/91

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Chemical	Trench #1	Trench #1 4'	Trench #6	EPA Maximum Contaminant Levels (MCLs) in Drinking Water for Selected Compounds
Benzene	<1.3	<2.5	<1.3	
Bromoform	<1.3	<2.5	<1.3	
Carbon Tetrachloride	<1.3	<2.5	<1.3	
Chlorobenzene	<1.3	<2.5	<1.3	
Chlorodibromomethane	<1.3	<2.5	<1.3	
Chloroethane	<1.3	<2.5	<1.3	
2-Chloroethyl Vinyl Ether	<1.3	<2.5	<1.3	
Chloroform	<1.3	<2.5	<1.3	
Dichlorobromomethane	<1.3	<2.5	<1.3	0.1
1,1 Dichloroethane	<1.3	4.0	2.3	
1,2 Dichloroethane	<1.3	<2.5	<1.3	
1,1 Dichloroethylene	<1.3	<2.5	<1.3	0.007
1,2 Dichloropropane	<1.3	<2.5	<1.3	
1,3-Dichloropropene	<1.3	<2.5	<1.3	
Ethylbenzene	26.0	220.0	<1.3	*0.7
Methyl Bromide	<1.3	<2.5	<1.3	
Methyl Chloride	<1.3	<2.5	<1.3	
Methylene Chloride	<1.3	<2.5	<1.3	
1,1,2,2-Tetrachloroethane	<1.3	<2.5	<1.3	
Tetrachloroethylene	<1.3	6.0	<1.3	*0.005
Toluene	10.0	1900.0	265.0	*2.0
1,2-Dichloroethylene	<1.3	300.0	<1.3	*0.07
1,1,1-Trichloroethane	<1.3	18.0	7.0	0.2
1,1,2-Trichloroethane	<1.3	<2.5	<1.3	
Trichloroethylene	<1.3	3.8	1.8	0.005
Trichlorofluoromethane	<1.3	<2.5	<1.3	
Vinyl Chloride	<1.3	5.0	<1.3	0.002
Xylene	65.0	710.0	150.0	*10.0

*Denotes Proposed MCL Values

280008

SAAD SITE SOIL PRIORITY POLLUTANT RESULTS (IN PPM) 3/26/91

Page 2 of 4

Chemical	Trench #1	Trench #1 4'	Trench #6
2-Chlorophenol	<3.3	<3.3	<1.7
2,4-Dichlorophenol	<3.3	<3.3	<1.7
2,4-Dimethylphenol	<3.3	<3.3	<1.7
2,4-Dinitrophenol	<3.3	<3.3	<1.7
2-Nitrophenol	<3.3	<3.3	<1.7
4-Nitrophenol	<3.3	<3.3	<1.7
P-chloro-M-Cresol	<3.3	<3.3	<1.7
Pentachlorophenol	<3.3	<3.3	<1.7
Phenol	<3.3	6.6	<1.7
2,4,6-Trichlorophenol	<3.3	<3.3	<1.7
Acenaphthene	<3.3	<3.3	<1.7
Acenaphthylene	<3.3	<3.3	<1.7
Anthracene	<3.3	<3.3	<1.7
Benzidine	<3.3	<3.3	<1.7
Benzo(A)anthracene	<3.3	<3.3	<1.7
Benzo(A)pyrene	<3.3	<3.3	<1.7
Benzo(B)fluoranthene	<3.3	<3.3	<1.7
Benzo(GH)perylene	<3.3	<3.3	<1.7
Benzo(K)fluoranthene	<3.3	<3.3	<1.7
Bis-2-Chloroethoxy Methane	<3.3	<3.3	<1.7
Bis(2-Chloroethyl)Ether	<3.3	<3.3	<1.7
Bis(2-Chloroisopropyl)Ether	<3.3	<3.3	<1.7
Bis(2-Ethylhexyl)Phthalate	24.0	7.9	3.7
4-Bromo-Phenyl-Phenyl Ether	<3.3	<3.3	<1.7
Butyl Benzylphthalate	<3.3	<3.3	<1.7
2-Chloronaphthalene	<3.3	<3.3	<1.7
4-Chloro-Phenyl-Phenyl Ether	<3.3	<3.3	<1.7
Chrysene	<3.3	<3.3	<1.7
Dibenzo(A,H)Anthracene	<3.3	<3.3	<1.7

28 0039

SAAD SITE SOIL PRIORITY POLLUTANT RESULTS (IN PPM) 3/26/91

Page 3 of 4

Chemical	Trench #1	Trench #1 4'	Trench #6
1,2 Dichlorobenzene	<3.3	<3.3	<1.7
1,3 Dichlorobenzene	<3.3	<3.3	<1.7
1,4 Dichlorobenzene	<3.3	<3.3	<1.7
3,3 Dichloro Benzidine	<3.3	<3.3	<1.7
Diethyl Phthalate	<3.3	<3.3	<1.7
Dimethyl Phthalate	<3.3	<3.3	<1.7
Benzo(E)Pyrene	<3.3	<3.3	<1.7
Di N-Butyl Phthalate	<3.3	5.9	<1.7
2,4 Dinitrotoluene	<3.3	<3.3	<1.7
2,6 Dinitrotoluene	<3.3	<3.3	<1.7
Di-N-Octyl Phthalate	<3.3	<3.3	<1.7
1,2-Diphenyl Hydrazine	<3.3	<3.3	<1.7
Fluoranthene	<3.3	<3.3	3.7
Fluorene	<3.3	<3.3	<1.7
Hexachlorobenzene	<3.3	<3.3	<1.7
Hexachlorobutadiene	<3.3	<3.3	<1.7
Hexachlorocyclopentadiene	<3.3	<3.3	<1.7
Hexachloroethane	<3.3	<3.3	<1.7
Indeno(1,2,3 (1))Pyrene	<3.3	<3.3	<1.7
Isophorone	<3.3	<3.3	<1.7
Napthalene	8.9	<3.3	8.3
Nitrobenzene	<3.3	<3.3	<1.7
N-Nitro Dimethylamine	<3.3	<3.3	<1.7
N-Nitro Dipropylamine	<3.3	<3.3	<1.7
N-Nitro Diphenylamine	<3.3	<3.3	<1.7
Phenanthrene	6.4	5.3	5.0
Pyrene	<3.3	<3.3	<1.7
1,2,4-Trichlorobenzene	<3.3	<3.3	<1.7
Aldrin	<0.5	<0.5	<0.5

2 8 0040

SAAD SITE SOIL PRIORITY POLLUTANT RESULTS (IN PPM) 3/26/91

Page 4 of 4

Chemical	Trench #1	Trench #1 4'	Trench #6
Alpha BHC	<0.5	<0.5	<0.5
Beta BHC	<0.5	<0.5	<0.5
Gamma BHC	<0.5	<0.5	<0.5
Delta BHC	<0.5	<0.5	<0.5
Chlordane	<0.5	<0.5	<0.5
4,4' DDT	<0.5	<0.5	<0.5
4,4' DDE	<0.5	<0.5	<0.5
4,4' DDD	<0.5	<0.5	<0.5
Dieldrin	<0.5	<0.5	<0.5
Alpha Endosulfan	<0.5	<0.5	<0.5
Beta Endosulfan	<0.5	<0.5	<0.5
Endosulfan Sulfate	<0.5	<0.5	<0.5
Endrin	<0.5	<0.5	<0.5
Endrin Aldehyde	<0.5	<0.5	<0.5
Heptachlor	<0.5	<0.5	<0.5
Heptachlorepoxyde	<0.5	<0.5	<0.5
PCB 1242	<0.5	<0.5	<0.5
PCB 1254	<0.5	<0.5	<0.5
PCB 1221	<0.5	<0.5	<0.5
PCB 1232	<0.5	<0.5	<0.5
PCB 1248	<0.5	<0.5	<0.5
PCB 1260	<0.5	<0.5	<0.5
PCB 1016	<0.5	<0.5	<0.5
Toxaphene	<0.5	<0.5	<0.5

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9

APPENDIX D

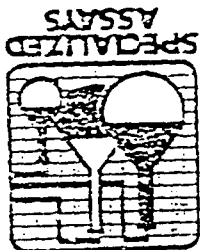
SAAD SITE MISCELLANEOUS ANALYTICAL RESULTS (IN PPM) 3/26/91

Chemical	T-1	T-3	T-4	Metal Box
Total Organic Halogen (TOX)		3.2		169.0
PCB				<0.5
Benzene	<0.10		<0.10	
Carbon Tetrachloride	<0.10		<0.10	
Chlorobenzene	<0.10		<0.10	
Chlorodibromomethane	<0.10		<0.10	
Chlorethane	<0.10		<0.10	
2-Chloroethyl Vinyl Ether	<0.10		<0.10	
Chloroform	<0.10		<0.10	
Dichlorobromomethane	<0.10		<0.10	
Dichlorodifluoromethane	<0.10		<0.10	
1,1-Dichloroethane	<0.10		<0.10	
1,2-Dichloroethane	<0.10		<0.10	
1,1-Dichloroethylene	<0.10		<0.10	
1,2-Dichloropropane	<0.10		<0.10	
1,3-Dichloropropene	<0.10		<0.10	
Ethylbenzene	0.79		0.18	
Methyl Bromide	<0.10		<0.10	
Methyl Chloride	<0.10		<0.10	
Methylene Chloride	<0.10		<0.10	
1,1,2,2-Tetrachloroethane	<0.10		<0.10	
Tetrachloroethylene	<0.10		<0.10	
Toluene	0.26		0.022	
1,2-Dichloroethylene	<0.10		<0.10	
1,1,1-Trichloroethane	<0.10		<0.10	
1,1,2-Trichloroethane	<0.10		<0.10	
Trichloroethylene	<0.10		0.014	
Trichlorofluoromethane	<0.10		<0.10	
Vinyl Chloride	<0.10		<0.10	
Xylene	0.24		0.041	

2 8 0044

APPENDIX E

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Phone 1-615-255-5786

SPECIMEN

SPECIMEN NO. 10 11
1171111

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DATE COLLECTED

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TEST

RESULT

REFERENCE LIMITS

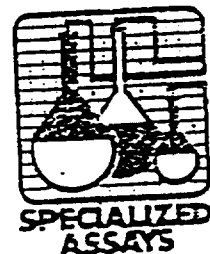
UNITS

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PLAZA 1, SUITE 410
120 ATHENS WAY
NASHVILLE

TN 37203

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SPECIMEN
TRENCH #2

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04/10/91

WESTBROOK

TEST

RESULT

REFERENCE LIMITS

UNITS

HEAVY METALS

ARSENIC	<0.10	PPM
CADMIUM	<1.0	PPM
CHROMIUM	<0.10	PPM
CHROMIUM, TOTAL	<0.50	PPM
COPPER	<0.50	PPM
MERCURY	<0.010	PPM
NICKEL	<0.10	PPM
SILVER	<0.10	PPM

SEMI-VOLATILES

TEST METHOD NUMBER	8240	
QUANTITATION LIMIT	0.10	PPM

BENZENE ND

CARBON TETRACHLORIDE ND

CHLOROBENZENE ND

CHLOROFORM ND

1,2-DICHLOROETHANE ND

1,1-DI-CL-ETHYLENE ND

2-BUTANONE (MEK) <1.0 PPM

1,1,2,2-TETRACHLOROETHYLENE ND

1,1-DICHLOROETHYLENE ND

1,1,1-TRICHLORIDE ND

1,2-DICHLOROETHYLENE 0.79 PPM

SEMI-EXTRACTABLES

TEST METHOD NUMBER	8270	
--------------------	------	--

QUANTITATION LIMIT	0.10	PPM
--------------------	------	-----

ACETOPHENONE ND

4-CRESOL ND

3-CRESOL ND

2-CRESOL ND

1,4-DICHLOROBENZENE ND

1,4-DINITROTOLUENE ND

1,2-DICHLOROBUTADIENE ND

1,2-DICHLOROETHANE ND

1,3-DICHLOROBENZENE ND

1,2,4-TRICHLOROPHENOL ND

2,4,6-TRICHLOROPHENOL ND

2,4,6-TRICHLOROPHENOL ND

1,2,3,4,5-PENTACHLOROBENZENE ND

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28 0053

3 TRENCH #2

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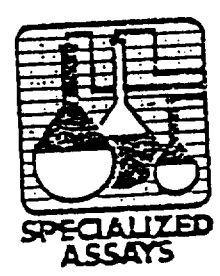
TEST	RESULT	REFERENCE LIMITS	UNITS
P PESTICIDE/HERB THOD NUMBER QUANTITATION LIMIT	8080 LESS THAN VALUES ARE QUANTITATION LIMITS FOR PESTICIDES.		
FLORDANE	<0.015		PPM
ORIN	<0.010		PPM
PTACHLOR	<0.005		PPM
PTACHLOREPOXIDE	<0.005		PPM
NDANE	<0.20		PPM
ITHOXYCHLOR	<1.0		PPM
OXAPHENE	<0.25		
THOD NUMBER QUANTITATION LIMIT	8150 LESS THAN VALUES ARE QUANTITATION LIMITS FOR HERBICIDES.		
4,-D	<5.0		PPM
4,5-TP(SILVEX)	<0.5		PPM

0054
28

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MEMO #3

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WESTBROOK

CLIENT LAB NO.
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REPORTED
04/10/91

TEST

RESULT

REFERENCE LIMITS

UNITS

0055

PER METALS

LEAD

<0.10

PPM

SILVER

<1.0

PPM

ADMIUM

<0.10

PPM

IRONIUM, TOTAL

<0.50

PPM

AD

<0.50

PPM

MERCURY

<0.010

PPM

LENIUM

<0.10

PPM

VER

<0.10

PPM

UP VOLATILES

8240

PPM

ETHOD NUMBER

0.10

PPM

QUANTITATION LIMIT

0.10

PPM

ENZENE

ND

PPM

ARBON TETRACHLORIDE

ND

PPM

CHLOROBENZENE

ND

PPM

CHLOROFORM

ND

PPM

2-DICHLOROETHANE

ND

PPM

1-DI-CL-ETHYLENE

ND

PPM

BUTANONE (MEK)

<1.0

PPM

TETRACHLOROETHYLENE

ND

PPM

CHLOROETHYLENE

0.11

PPM

CHLORIDE

ND

PPM

2-DICHLOROETHYLENE

0.37

PPM

EXTRACTABLES

8270

PPM

ETHOD NUMBER

0.10

PPM

QUANTITATION LIMIT

0.10

PPM

MYRIDINE

ND

PPM

CRESOL

ND

PPM

CRESOL

ND

PPM

CRESOL

ND

PPM

4-DICHLOROENZENE

ND

PPM

4-DINITROTOUENE

ND

PPM

EXACHLOROBUTADIENE

ND

PPM

EXACHLOROETHANE

ND

PPM

BROBENZENE

ND

PPM

ENTACHLOROPHENOL

ND

PPM

4,5-TRICHLOROPHENOL

ND

PPM

4,6-TRI-CL PHENOL

ND

PPM

EXACHLOROBENZENE

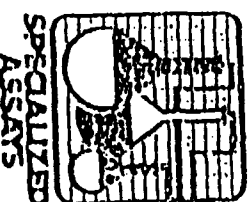
ND

PPM

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TRENCH #3
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 RY WESTBROOK

DATE COLLECTED 03/26/91
 TIME COLLECTED 00:00
 CLIENT LAB NO. 00000

RECEIVED 03/26/91
 REPORTED 02/10/91

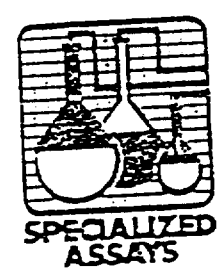
TEST	RESULT	REFERENCE LIMITS	UNITS
P PESTICIDE/HERB			
THOD NUMBER			
QUANTITATION LIMIT			
ALORDANE	8080		
DRIN	LESS THAN VALUES ARE QUANTITATION LIMITS FOR		
PTACHLOR	PESTICIDES.		PPM
PTACHLOREPOXIDE	<0.015		PPM
NDANE	<0.010		PPM
THOXYCHLOR	<0.005		PPM
OXAPHENE	<0.005		PPM
THOD NUMBER	<0.20		PPM
QUANTITATION LIMIT	<1.0		PPM
	<0.25		PPM
	6150		
	LESS THAN VALUES ARE QUANTITATION LIMITS FOR		
	HERBICIDES.		PPM
4,-D	<5.0		PPM
4,5-TP(SILVEX)	<0.5		

0056
 2 8

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REFERRING CLIENT	DATE COLLECTED	TIME COLLECTED	RECEIVED
WESTBROOK	03/26/91	00:00	03/26/91
	CLIENT LAB NO 00000		REPORTED 04/10/91
TEST	RESULT	REFERENCE LIMITS	UNITS
P METALS			PPM
ARSENIC	<0.10		PPM
CAIUM	1.28		PPM
CHLORINE	<0.10		PPM
CHROMIUM, TOTAL	<0.50		PPM
CAD	<0.50		PPM
MERCURY	<0.010		PPM
LEAD	<0.10		PPM
COPPER	<0.10		PPM
P VOLATILES			
METHOD NUMBER	8240		PPM
QUANTITATION LIMIT	0.10		
BENZENE	ND		
PERCHLOROTETRACHLORIDE	ND		
PERCHLOROBENZENE	ND		
PERCHLOROFORM	ND		
1,2-DICHLOROETHANE	ND		
1,1-DI-CL-ETHYLENE	ND		
BUTANONE (MEK)	<1.0		PPM
PERCHLOROETHYLENE	ND		
PERCHLOROETHYLENE	ND		
PERCHLORIDE	ND		
1,2-DICHLOROETHYLENE	3.3		PPM
P EXTRACTABLES			
METHOD NUMBER	8270		PPM
QUANTITATION LIMIT	0.10		
ACRYLONITRILE	ND		
2,4-DICRESOL	ND		
2,6-DICRESOL	ND		
2,4-DICRESOL	ND		
1,4-DICHLOROBENZENE	ND		
1,4-DINITROTOLUENE	ND		
PERCHLOROBUTADIENE	ND		
PERCHLOROETHANE	ND		
PERCHLOROBENZENE	ND		
PERCHLOROPHENOL	ND		
2,4,5-TRICHLOROPHENOL	ND		
2,4,6-TRI-CL PHENOL	ND		
PERCHLOROBENZENE	ND		

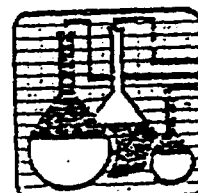
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TRENCH 88/87

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02/10/91

0058

TEST

RESULT

REFERENCE LIMITS

UNITS

PESTICIDE/HERB
THOD NUMBER
QUANTITATION LIMIT8080
LESS THAN VALUES ARE QUANTITATION LIMITS FOR
PESTICIDES.LORDANE
DRIN
PTACHLOR
PTACHLOREPOXIDE
NDANE
THOXYCHLOR
XAPHENE
THOD NUMBER
QUANTITATION LIMIT

<0.015

<0.010

<0.005

<0.005

<0.20

<1.0

<0.25

8150

LESS THAN VALUES ARE QUANTITATION LIMITS FOR
HERBICIDES.

<5.0

<0.5

PPM

PPM

PPM

PPM

PPM

PPM

PPM

PPM

PPM

PPM

PPM

PPM

PPM

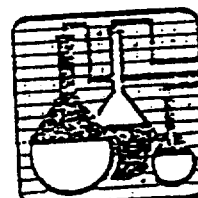
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4,4-D
4,5-TP(SILVEX)E. M. P. E. INC.
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3 TRENCH - #4

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03/26/91

CLIENT LAB NO.
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REPORTED
04/10/91

TEST BROOK

TEST

RESULT

REFERENCE LIMITS

UNITS

0059

2 METALS

LEAD

<0.10

PPM

CHROMIUM

<1.0

PPM

CHROMIUM

<0.10

PPM

CHROMIUM, TOTAL

<0.50

PPM

LEAD

<0.50

PPM

MERCURY

<0.010

PPM

CHROMIUM

<0.10

PPM

LEAD

<0.10

PPM

2 VOLATILES

ETHOD NUMBER

8240

PPM

QUANTITATION LIMIT

0.10

LEAD

NO

CARBON TETRACHLORIDE

NO

CHLOROBENZENE

NO

CHLOROFORM

NO

2-DICHLOROETHANE

NO

1-DI-CL-ETHYLENE

NO

BUTANONE (MEK)

NO

ETRACHLOROETHYLENE

NO

2-CHLOROETHYLENE

NO

CHLORIDE

NO

2-DICHLOROETHYLENE

NO

2-EXTRACTABLES

NO

ETHOD NUMBER

8270

PPM

QUANTITATION LIMIT

0.10

XYRIDINE

NO

CRESOL

NO

CRESOL

NO

CRESOL

NO

4-DICHLOROETHYLENE

NO

4-DINITROTOLUENE

NO

EXACHLOROBUTADIENE

NO

EXACHLOROETHANE

NO

TROBENZENE

NO

ENTACHLOROPHENOL

NO

2,4,5-TRICHLOROPHENOL

NO

4,6-TRI-CL PHENOL

NO

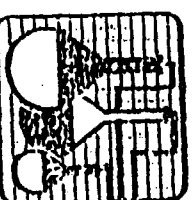
EXACHLOROETHYLENE

NO

E. M. P. E. I. INC.
PLAZA 1, SUITE 410
220 ATHENS WAY
NASHVILLE

TN 37226

4047



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TEST

RESULT

REFERENCE LIMITS

UNITS

UP PESTICIDE/HERB
METHOD NUMBER
QUANTITATION LIMIT

8060
LESS THAN VALUES ARE QUANTITATION LIMITS FOR
PESTICIDES.

0000

ALORDANE

PPM

DORIN

PPM

ESTACHLOR

PPM

ESTACHLOREPOXIDE

PPM

INDANE

PPM

ETHOXYCHLOR

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OXAPHENE

PPM

METHOD NUMBER

QUANTITATION LIMIT

LESS THAN VALUES ARE QUANTITATION LIMITS FOR
HERBICIDES.

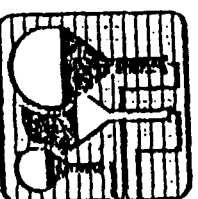
2,4-D
2,4,5-TP(SILVEX)

PPM
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E. M. E. E. INC.
PLAZA 11 SUITE 410
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TEST

RESULT

REFERENCE LIMITS

UNITS

P METALS

TEST	RESULT	REFERENCE LIMITS	UNITS
ARSENIC	<0.10		PPM
CHROMIUM	<1.0		PPM
CADMIUM	<0.10		PPM
CHROMIUM, TOTAL	<0.50		PPM
CAD	<0.50		PPM
MERCURY	<0.010		PPM
LEAD	<0.10		PPM
COPPER	<0.10		PPM

P VOLATILES

TEST	RESULT	REFERENCE LIMITS	UNITS
METHOD NUMBER	8240		
QUANTITATION LIMIT	0.10		PPM
BENZENE	ND		
CARBON TETRACHLORIDE	ND		
CHLOROBENZENE	ND		
CHLOROFORM	ND		
1,2-DICHLOROETHANE	ND		
1,1-DI-CL-ETHYLENE	ND		
BUTANONE (MEK)	<1.0		PPM
1,1,2,2-TETRACHLOROETHYLENE	ND		
1,1,1-TRICHLOROETHYLENE	ND		
1,1,2-TRICHLOROETHYLENE	ND		

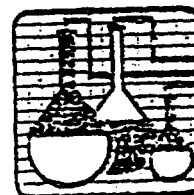
P EXTRACTABLES

TEST	RESULT	REFERENCE LIMITS	UNITS
METHOD NUMBER	8270		
QUANTITATION LIMIT	0.10		PPM
ACETOPHENONE	ND		
2-CRESOL	ND		
3-CRESOL	ND		
4-CRESOL	ND		
1,4-DICHLOROBENZENE	ND		
1,4-DINITROTOLUENE	ND		
1,2,3,4-TETRACHLOROBUTADIENE	ND		
1,2,3,4-TETRACHLOROETHANE	ND		
1,2,3,4-TETRACHLOROBENZENE	ND		
1,2,3,4-TETRACHLOROPHENOL	ND		
1,4,5-TRICHLOROPHENOL	ND		
1,4,6-TRI-CL PHENOL	ND		
1,2,3,4-TETRACHLOROBENZENE	ND		

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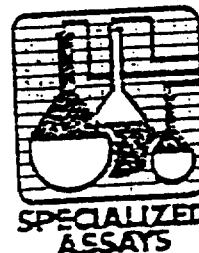
28

TEST	RESULT	REFERENCE LIMITS	UNITS
P PESTICIDE/HERB THOD NUMBER ANTITATION LIMIT	8080 LESS THAN VALUES ARE QUANTITATION LIMITS FOR PESTICIDES.		
LORDANE	<0.015		PPM
DRIN	<0.010		PPM
PTACHLOR	<0.005		PPM
PTACHLOREPOXIDE	<0.005		PPM
NDANE	<0.20		PPM
THOXYCHLOR	<1.0		PPM
OXAPHENE	<0.25		
THOD NUMBER	8150		
ANTITATION LIMIT	LESS THAN VALUES ARE QUANTITATION LIMITS FOR HERBICIDES.		
4,-D	<5.0		PPM
4,5-TP(SILVEX)	<0.5		PPM

E. M. P. E., INC.
PLAZA 1, SUITE 410
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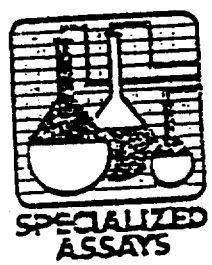
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TEST	RESULT	REFERENCE LIMITS	UNITS
P. PESTICIDE/HERB THOD NUMBER QUANTITATION LIMIT	8080 LESS THAN VALUES ARE PESTICIDES.	QUANTITATION LIMITS FOR	
ORDANE	<0.015		PPM
ORIN	<0.010		PPM
PTACHLOR	<0.005		PPM
PTACHLOREPOXIDE	<0.005		PPM
NDANE	<0.20		PPM
THOXYCHLOR	<1.0		PPM
OXAPHENE	<0.25		
THOD NUMBER QUANTITATION LIMIT	8150 LESS THAN VALUES ARE HERBICIDES.	QUANTITATION LIMITS FOR	
4,-D	<5.0		PPM
4.5-TP(SILVEX)	<0.5		PPM

E. M. F. E., INC.
PLAZA 1, SUITE 410
220 ATHENS WAY
NASHVILLE

TN 37228

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TEST

RESULT

REFERENCE LIMITS

UNITS

CHLORO-m-CRESOL
PTACHLOROPHENOL
ENDL

ND
ND
ND

4,4'-TRI-CL-PHENOL

ND

ENAPHTHENE

ND

ENAPHTHYLENE

ND

THREACENE

ND

NOBACINE

ND

NO(A)ANTHRACENE

ND

NO(A)PYRENE

ND

NO(O)FLUORANTHENE

ND

NO(O)FLUORENE

ND

NO(O)FLUORANTHENE

ND

NO(O)-O-ETHOX-METH

ND

NO(O)-O-ETHYL-ETHER

ND

NO(O)-O-ISOPRO-ETHER

ND

NO(O)-ETH-EX)PETHAL

ND

NO-PHEN-PHEN-ETHER

ND

NO-BENZ-ETHALATE

ND

NO-CHLORONITALENE

ND

NO-PHEN-PHEN-ETHER

ND

ENE

ND

NO(A)ANTHRACEN

ND

NO-CHLOROSENE

ND

NO-CHLOROSENE

ND

NO-CHLOROSENE

ND

NO-ETH-EX)PETHAL

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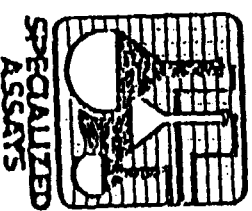
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ELDER, 501E-410
120 AIRBUS WAY
NASHVILLE

TN 37203

4047



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PHONE 1-615-255-5766

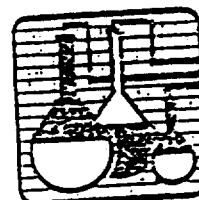
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H. K. F. E., INC.
FLAIR 1, SUITE 410
220 ATHENS WAY
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RESULT

REFERENCE LIMITS

UNITS

(SOLID MATRIX)

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280069

E. M. P. E., INC.
PLAZA 1, SUITE 410
220 ATHENS WAY
NASHVILLE

TN 37226

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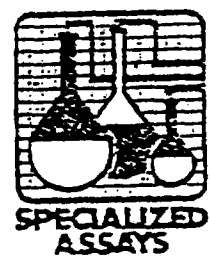
TEST	RESULT	REFERENCE LIMITS	UNITS
ATILE ORGANICS			
THOD NUMBER	8240		
ANTITATION LIMIT	0.10		PPM
NZENE	ND		
OMOFORM	ND		
RBON TETRACHLORIDE	ND		
LOROBENZENE	ND		
LORODIBRMETHANE	ND		
LOROETHANE	ND		
CLETHYVINYL ETHER	ND		
LOROFORM	ND		
-CL-BR-METHANE	ND		
1-DICHLOROETHANE	ND		
2-DICHLOROETHANE	ND		
1-DI-CL-ETHYLENE	ND		
2-DICHLOROPROPANE	ND		
3-DICHLOROPROPENE	ND		
THYLBENZENE	0.79		PPM
THYL BROMIDE	ND		
THYL CHLORIDE	ND		
ET ENE CHLORIDE	ND		
2 TET CL ETHAN	ND		
TACHLOROETHYLENE	ND		
LUENE	0.26		PPM
2-DICHLOROETHYLENE	ND		
1,1-TRI-CL-ETHANE	ND		
1,2-TRI-CL-ETHANE	ND		
RICHLOROETHYLENE	ND		
RI-CL-F-METHANE	ND		
INYL CHLORIDE	ND		
YLENE	0.24		PPM

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M. P. E. INC.
SUITE 410
HENS WAY
HVILLE

Telephone: 000 320 7836

TN 37225 4047



210 12th Ave., Sc. - Nashville, TN 37203
Phone 1-615-255-5756

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R. ESTBROOK

UNITS

REFERENCE LIMITS

TEST

RESULT

ORGANIC HALOGEN

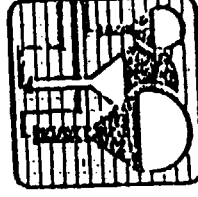
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E. M. P. ELL INC.
PLAZA 1, SUITE 410
220 ATHENS WAY
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UNITS

REFERENCE LIMITS

RESULT

TEST

ATILE ORGANICS

METHOD NUMBER

8240

ANTICIPATION LIMIT

0.010

BENZENE

ND

CHLOROFORM

ND

CARBON TETRACHLORIDE

ND

FLUOROBENZENE

ND

FLUORODIBROMETHANE

ND

FLUOROETHANE

ND

DIBUTHYLVINYL ETHER

ND

FLUOROFORM

ND

1-CL-BROMETHANE

ND

1-DICHLOROETHANE

ND

2-DICHLOROETHANE

ND

1-DI-CL-ETHYLENE

ND

2-DICHLOROPROPANE

ND

3-DICHLOROPROPENE

ND

THYLBENZENE

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ETHYL BROMIDE

ND

ETHYL CHLORIDE

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ND

1,2-TET-CL-ETHAN

ND

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ND

CHLOROBENZENE

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2-DICHLOROETHYLENE

ND

1,1-TRI-CL-ETHANE

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1,2-TRI-CL-ETHANE

ND

TRICHLOROETHYLENE

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1-CL-1,2-DIBROMETHANE

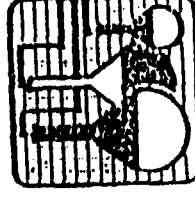
ND

1,1-DICHLOROETHYLENE

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ETHYLENE

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SPECIALIZED
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Telephone: 000 320 7838

R. P. B. INC.

SUITE 410

HENS WAY

HVILLE

TN

37228

4047

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Phone 1-615-255-5785

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WESTBROOK

TEST

RESULT

REFERENCE LIMITS

UNITS

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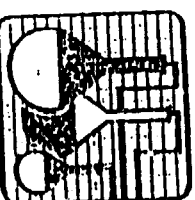
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E. M. P. E. INC.
PLAZA 1, SUITE 210
220 ATHENS WAY
NASHVILLE

TN 37226

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SPECIALIZED
ASSAYS

210 12th Ave., S.E. - Nashville, TN 37203
Phone 1-615-255-5766

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de maximis, inc.

9041 Executive Park Drive
Suite 601
Knoxville, TN 37923
(615) 691-5052

19 July 1991

Mr. Fred B. Stroud
Senior On-Scene Coordinator
USEPA Region IV
345 Courtland Street, NE
Atlanta, Ga 30365

**Reference: Removal Action/Field Investigation Work Plan
Saad Trousdale Drive Site, Nashville, Tennessee**

Dear Mr. Stroud:

Pursuant to our previous conversations and the Administrative Order by Consent dated April 11, 1990, enclosed are two copies of the Removal Action/Field Investigation Work Plan for the Saad Trousdale Drive Site. As we discussed, the work scope is necessary to confirm previous investigatory activities and to further characterize the extent of the former settling basin.

Access agreements are currently being pursued for this additional work with Ellis and Kathy Saad, Klein Brothers Coach, Inc., H. Rodes Hart (Franklin Brick) and CSX Transportation, Inc. In accordance with the AOC Section VI, Paragraph 17, if written agreements are not obtained within 30 days of this submittal, then the EPA will be requested to assist or assume responsibility for obtaining such access.

In conjunction with and as part of the proposed access agreement with Ellis and Kathy Saad, the Saad Site Steering Committee is seeking shutdown of the L.T.D. Body Shop. Continued operation of this auto body shop on-site creates physical impediments to the Work Plan implementation and has the potential to contribute hazardous substances to the Site. Should an agreement with the owners not be reached, the Committee will request the assistance of USEPA in this matter.

It should be noted that the miscellaneous debris, equipment and materials on the site may have some value and are not the property of the Committee. USEPA's approval of this Work Plan will provide the Committee authority to remove and dispose of these materials.

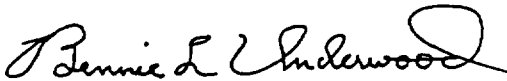
Mr. Fred Stroud
19 July 1991
Page 2 of 2

The Committee is prepared to initiate implementation of the Work Plan within one week of USEPA approval and obtaining all necessary access agreements. Our planning provides flexibility relative to field activities to ensure that the objectives of the Work Plan are met. Field changes will be made as necessary with USEPA OSC concurrence and documented as specified in the AOC.

All the contractor(s)/disposal firms(s) to be used have yet to be identified. As these become available, we shall provide you qualification packages and your concurrence will be requested.

If you or your staff have questions or comments concerning this Work Plan, please contact me at (615) 691-5052.

Best regards,


Bennie L. Underwood
Project Coordinator

BLU/mdm

Enclosures

cc: G. S. Thomas

▽
de maximis, inc.

9041 Executive Park Drive
Suite 601
Knoxville, TN 37923
(615) 691-5052

2 8 0078
7/3/91

EXHIBIT

401

July 2, 1991

Mr. Fred Stroud
USEPA, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

**Reference: SAAD Trousdale Road Site
Exploratory Trenching Investigation**

Dear Mr. Stroud:

Enclosed is the Exploratory Trenching Investigation for the SAAD Trousdale Road Site in Nashville, Tennessee. The report documents exploratory excavation activities and sampling results from the March, 1991 investigation conducted by EMPE, Inc.

Based on analytical results from the trenching report, data from previous reports, and historic aerial photographs recently obtained of the area, the extent of the former settling basin at the site has not been adequately delineated. An additional investigation will be necessary to define the extent of the basin, and to develop general remediation alternatives. Other site activities that will be completed along with the additional investigation include:

- Characterization and disposal of off-site exposed drums that are suspected to be site related;
- Characterization and disposal of drummed materials remaining on-site from tank content removal actions conducted by Ensite;
- Removal of the empty oil/water separator system; and
- Further stormwater redirection evaluation in conjunction with the remedial alternatives assessment.

It should be noted that all future investigatory activities to be conducted at the site will be performed after obtaining signed access agreements from present property owners. If agreements cannot be obtained within 30 days of a supplemental work plan submittal EPA's assistance will be requested.

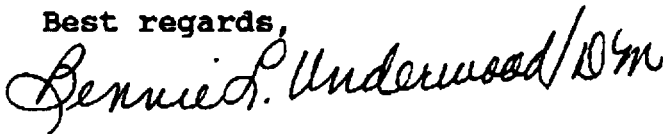
Fred Stroud
July 2, 1991
Page 2 of 2

As you are aware, de maximis, inc. has been appointed as the Project Coordinator by the Saad Site Steering Committee. All reports, comments and correspondence to the Committee should also be directed to the Project Coordinator. The record keeper for the Committee shall continue to be the law firm of Bass, Berry & Sims located in Nashville, Tennessee. All contractors, subcontractors, laboratories, and disposal facilities to be utilized during the remainder of the project will be subject to the approval of the agency. The contractor and laboratory expected to be used during the additional investigation will be EMPE, Inc. and Specialized Assays (Nashville, TN), respectively. This contractor and laboratory have been approved by the agency for previous activities.

The work plan for the next phase of activity at the site will be submitted to you for review on or before July 30, 1991 and will consist of a Field Sampling Plan (FSP), Health and Safety Plan, and a Quality Assurance Project Plan (QAPP). The FSP and QAPP will incorporate appropriate protocols and requirements of the USEPA Region IV Standard Operating Procedures.

If you have any questions regarding the enclosed report, please call me at (615) 691-5052. I anticipate working closely with you and the agency to expedite this project. Thank you for your assistance.

Best regards,



Bennie L. Underwood
Project Coordinator

RD/mdm

Attachment

cc: Saad Site Technical Committee
Barry Westbrook (EMPE, Inc.)

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